

**UNIVERSIDAD PRIVADA DE TACNA**



**FACULTAD DE INGENIERIA**

**Escuela Profesional de Ingeniería de Sistema**

**Informe de laboratorio 06: Kinesis Data Firehose**

**Curso: Inteligencia de negocios**

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# 1. Realizar los siguientes pasos para el laboratorio

## 1.1. Ingestando datos a Firehose mediante el SDK de AWS



## 1.2. Entrar a la consola de AWS

## 1.3. Ir al servicio de Kinesis Firehose, clic en Create delivery stream

Analytics

# Amazon Kinesis

Recopile, procese y analice fácilmente secuencias de datos en tiempo real.

Cómo funciona

### Introducción

- ☐ Kinesis Data Streams  
Recopilar datos de streaming con una secuencia de datos.
- ☒ Kinesis Data Firehose  
Procese y entregue datos de streaming con una secuencia de entrega de datos.
- ☐ Kinesis Data Analytics  
Analice datos de streaming con aplicaciones de análisis de datos.

[Crear secuencia de entrega](#)

### Precios (EE.UU. Este (Norte de Virginia))

Amazon Kinesis Data Streams ▼

1.4. Crear el stream con el nombre de StreamSensorIoT, y luego siguiente y otra vez siguiente.

## Kinesis Data Firehose - Create delivery stream

### Step 1: Name and source

Step 2: Process records

Step 3: Choose a destination

Step 4: Configure settings

Step 5: Review

### New delivery stream

Delivery streams load data, automatically and continuously, to the destinations that you specify. Kinesis Data Firehose resources are not covered under the [AWS Free Tier](#), and **usage-based charges** apply. For more information, see [Kinesis Data Firehose pricing](#). [Learn more](#)

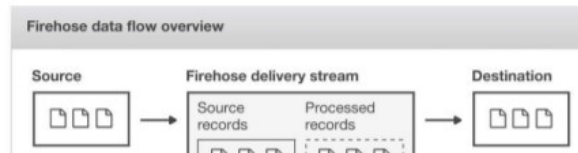
Delivery stream name

StreamSensorIoT

Acceptable characters are uppercase and lowercase letters, numbers, underscores, hyphens, and periods.

### Choose a source

Choose how you would prefer to send records to the delivery stream.



1.5. En la siguiente ventana, dejamos marcado S3, porque es ahí donde almacenaremos los datos que se agregarán a Kinesis Data Firehose.

## Kinesis Data Firehose - Create delivery stream

Step 1: Name and source

Step 2: Process records

**Step 3: Choose a destination**

Step 4: Configure settings

Step 5: Review

### Select a destination

[Learn more](#)

#### Destination

☒ Amazon S3

Amazon S3 is an easy-to-use object storage, with a simple web service interface to store and retrieve any amount of data from anywhere on the web.

☐ Amazon Redshift

Amazon Redshift is a fast, fully managed, petabyte-scale data warehouse that makes it simple and cost effective to analyze all your data using your existing business intelligence tools

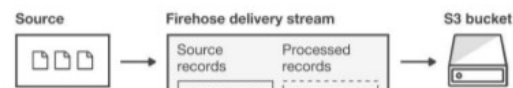
☐ Amazon Elasticsearch Service

Elasticsearch is an open-source search and analytics engine for use cases such as log analytics, real-time application monitoring, and click stream analytics

☐ Splunk

Splunk is an operational intelligence tool for analyzing machine-generated data in real-time

#### Firehose to S3 data flow overview




1.6. Creamos un bucket en la siguiente pantalla. (Los nombres de los bucket son únicos globalmente)

The screenshot shows the 'S3 destination' configuration page in the AWS console. A modal window titled 'Create S3 bucket' is open in the center. The modal contains the following elements:

- Title:** Create S3 bucket
- Description:** A bucket is a container for objects stored in Amazon S3. [Learn more](#)
- S3 bucket name:** A text input field containing the value 'aws-iot-sensor-lmgs'.
- Region:** A dropdown menu showing 'US East (N. Virginia)'.
- Buttons:** 'Cancel' and 'Create S3 bucket'.

The background page is partially visible and includes the following sections:


- S3 destination:** Choose a destination in Amazon S3 where your data will be stored. Amazon S3 is object storage built to store and retrieve any amount of data from anywhere. [Learn more](#)
- S3 bucket:** A section with a 'Choose' button.
- S3 prefix:** A section with a 'Choose' button.
- S3 error prefix:** You can specify an S3 bucket prefix to be used in error conditions. This prefix can include expressions for Kinesis Data Firehose to

If your custom prefix doesn't include expressions, Kinesis Data Firehose uses your prefix and appends "YYYY/MM/dd/HH". If your custom prefix includes a Kinesis Data Firehose random string or timestamp expression, Kinesis Data Firehose doesn't append "YYYY/MM/dd/HH". [Learn more](#) 

Prefix - *optional*

Enter a prefix

### S3 error prefix

You can specify an S3 bucket prefix to be used in error conditions. This prefix can include expressions for Kinesis Data Firehose to evaluate at runtime. [Learn more about the rules for specifying prefix expressions](#) 

Error prefix - *optional*

Enter a prefix

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[Cancel](#)

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1.7. En la siguiente ventana, definimos que el tamaño del búfer será de 1MB y el intervalo de tiempo es de 60 segundos. (Recordar que al cumplirse una de estas dos condiciones los datos se guardarán en S3)

## Kinesis Data Firehose - Create delivery stream

[Step 1: Name and source](#)

[Step 2: Process records](#)

[Step 3: Choose a destination](#)

**Step 4: Configure settings**

[Step 5: Review](#)

### Configure settings

Configure buffer, compression, logging, and IAM role settings for your delivery stream. [Learn more](#) 

### S3 buffer conditions

Kinesis Data Firehose buffers incoming records before delivering them to your S3 bucket. Record delivery will be triggered when either of the following conditions is satisfied. [Learn more](#) 

Buffer size

MiB

Enter a buffer size between 1-128 MiB

Buffer interval

seconds

Enter a buffer interval between 60-900 seconds

1.8. Seleccionamos la opción de crear un rol de IAM y Next. (Este rol, permitirá escribir los resultados en S3)

Key Value - optional

You can add 49 more tag(s)

## Permissions

### IAM role

Kinesis Data Firehose uses this IAM role for all the permissions that the delivery stream needs. To specify different roles for the different permissions, use the API or the CLI. [Learn more](#)

- ☒ **Create or update IAM role `KinesisFirehoseServiceRole-StreamSensor1-us-east-1-1593757572814`**  
This creates the role or updates it if it already exists, adds the required policies to it, and enables Kinesis Data Firehose to assume it.
- ☐ **Choose existing IAM role**  
The role that you choose must have policies that include the permissions that Kinesis Data Firehose needs.

[Cancel](#)

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1.9. Siguiente y Crear delivery stream.

**Settings**

Edit

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S3 buffer conditions

1 MiB or 60 seconds

Compression

Disabled

Encryption

Disabled

Error logging

Enabled

Tags

*no tags specified*

IAM role

KinesisFirehoseServiceRole-StreamSensorI-us-east-1-1593757572814

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Cancel

Previous

Create delivery stream

1.10. El stream en Kinesis Data Firehose se ha creado

### Kinesis Data Firehose delivery streams

Kinesis Data Firehose delivery streams continuously collect, transform, and load streaming data into the destinations that you specify.

✓

Successfully created delivery stream StreamSensorIoT

Next, send records directly to the delivery stream using the Amazon [Kinesis Agent](#) or the Kinesis Data Firehose API using the AWS SDK , or send records from AWS IoT, CloudWatch Logs, or CloudWatch Events. [Learn more](#)

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Test with demo data

Delete

Create delivery stream

Find delivery streams

< 1 >

	Name ▲	Status ▼	Creation time ▼	Source ▼	Data transformation ▼	Destination ▼
<input type="radio"/>	StreamSensorIoT	Active	2020-07-03T01:29-0500	Direct PUT and other sources	Disabled	Amazon S3 <a href="#">aws-iot-sensor-lmgs</a>

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1.11. Entramos a Cloud9, clic en Open IDE.

